

REMARKS/ARGUMENTS

Applicants submit that no new issues are presented by this Amendment After Final requiring additional searching by the Examiner and that this Amendment After Final places the application in better condition for appeal. Thus, entry of this Amendment After Final is respectfully requested.

Claims 4-6 and 10 have been canceled to overcome drawing rejections. Thus, claims 3, 7-9 and 11-20 are pending in this application. Arguments are provided herein for overcoming the rejections based on the prior art cited by the Examiner. To this end, Applicants respectfully submit that U.S. Patent No. 3,057,140 issued to Ridenour et al. fails to disclose a front portion of a blade housing that is covered by a base plate (ie., Ridenour discloses that the rear portion of the blade housing is covered by a base plate and that the front portion is open to permit the blade to cut grass from the ground within the front portion). In addition, Applicants respectfully submit that U.S. Patent No. 4,245,455 issued to Martin fails to disclose a base plate which extends between the blade and a ground surface.

Accordingly, Applicants respectfully request reconsideration of the rejections and respectfully submit that the present application is in condition for allowance.

I. Drawing Objections

In the Office Action, the Examiner objects to the drawings under 37 CFR §1.83(a) as not showing every feature of the invention specified in the claims. More specifically, the Examiner states that the drawings fail to show the features in claims 4-6, 10 and 20.

Claims 4-6 and 10 have been canceled.

Claim 20 requires the base plate (19') to be shaped similar to a radial profile of the blade. A flat base plate (19) is illustrated in solid lines in FIG. 1, as filed, and a base plate (19') having a profile similar to the blade is illustrated in dashed lines in FIG. 1, as filed. This is discussed in Paragraph No. 0034 of the present application, which states:

“... It is possible for the base plate 19' to be adapted at least partially to the profile of the blade and to run at the same distance to the cutting edges or regions, e.g., at least in sections. This configuration of the base plate is shown in Figure 1 with a dashed line.”

Thus, Applicants respectfully submit that FIG. 1 of the present application, as filed, clearly illustrates a base plate (19') that is shaped similar to a radial profile of the blade. Accordingly, Applicants respectfully submit that the features of claim 20 are clearly shown in FIG. 1.

For these reasons, Applicants request reconsideration and removal of the drawing objections under 37 CFR §1.83(a).

II. Claim Rejections - 35 USC §102(b)

In the Office Action, the Examiner rejects claims 3-20 under 35 USC §102(b) as being anticipated by U.S. Patent No. 3,057,140 issued to Ridenour et al.

The Ridenour patent discloses a lawnmower having a rotating blade (68) enclosed within a blade housing (34) that includes a base plate (14) extending under the blade (68) between the blade (68) and an underlying ground surface. As best illustrated by FIGs. 3 and 4 of the Ridenour patent, the base plate (14) extends from the rear wall of the blade housing and provides the blade (68) free access to an underlying ground surface only at an open front portion of the blade housing. Thus, the blade (68) is shielded from cutting the underlying grass by the base

plate (14), except within the uncovered front portion of the housing where the blade (68) extends beyond the front edge of the base plate (14). (See FIGs. 3 and 4 of the Ridenour patent.) In operation, grass is cut from an underlying surface one-time at one-height by the blade (68) where the grass is exposed to the blade (68) in the front of the blade housing ahead of the base plate (14). At all other locations of the blade housing, the blade (68) is shielded from the underlying surface by the base plate (14).

In the Office Action, the Examiner states that the Ridenour patent anticipates independent claim 14 of the present application because:

“Ridenour discloses ... A blade housing (fig 1, 5); A base plate (col. 1, In 70-73) between the blade & the ground surface ... The blade (ref 68) with at least two cutting edge regions with different cutting heights (fig 4)”.

Applicants respectfully disagree that the Ridenour patent anticipates independent claim 14 of the present application. Claim 14 requires “a front region (18) of the blade housing in the mowing direction (17) is partially covered by a base plate (19), which runs between the blade and the ground surface”.

The front region of the Ridenour blade housing (34) is not covered by base plate (14). The front region of the Ridenour blade housing (34) is the only location where the blade (68) is exposed to the underlying grass and is permitted to cut the grass from the ground.

For at least this reason, the Ridenour patent clearly fails to anticipate every limitation required by independent claim 14 of the present application. Reconsideration and removal of the anticipation rejection under 35 USC §102(b) is respectfully requested for this reason.

In addition to the above, there is a significant advantage provided by the present invention over the mower disclosed by the Ridenour patent.

The present invention utilizes a single blade that has a radially outermost cutting region that is located relatively close to the underlying ground surface and that defines the ultimate height of the trimmed grass of the underlying ground surface. (See item 22 in FIG. 1 of the present application.) An inner cutting region of the blade, which is located radially inward of the outermost cutting region, extends at a higher height above the underlying surface than the outermost cutting region. (See item 20 in FIG. 1 of the present application.) A base plate shields the grass of the underlying surface from being cut by the outermost cutting region of the blade where the blade travels in the front portion of the lawnmower. (See items 19, 19' in FIGs. 1 and 2 of the present application.)

In operation of the present invention, the grass is shielded from being cut by the blade of the mower in the front half of the lawnmower due to the presence of the base plate that extends in the front portion of the blade housing. Thus, the grass is only first cut when the rear half of the lawnmower passes over the underlying ground surface. At this location, the grass is cut to a height defined by the inner cutting region of the blade. Thereafter, as the lawnmower travels forward, the grass is cut incrementally several times by intermediate cutting region (21) of the blade before being cut to its final height by the outermost cutting region of the blade. Thus, the height of a blade of grass extending from the underlying surface is severed several times in relatively short-length increments from the ground surface thereby providing grass clippings of desired short lengths.

In contrast, Ridenour simply cuts the grass one-time to its final height from the underlying surface within the exposed front portion of the blade housing. Due to the wind currents within the blade housing that are caused by the rotating blade, the grass clippings in the

blade housing avoid further contact with the rotating blade and simply advance to and through a discharge opening without being subjected to further cutting.

Thus, the present invention, in which the base plate extends under the blade in the front portion of the blade housing instead of the rear portion of the blade housing, provides a significant advancement over the mower disclosed in the Ridenour patent. For these reasons, Applicants respectfully submit that the claims of the present invention are patentable over the Ridenour patent.

III. Claim Rejections - 35 USC §103(a)

In the Office Action, the Examiner rejects claims 4-20 under 35 USC §103(a) as being obvious over U.S. Patent No. 4,245,455 issued to Martin.

The Martin patent discloses a wheel-less lawnmower that is supported above an underlying ground surface on a cushion of air created by the rotating blade/fan.

With respect to the "base plate" limitation required by claim 14 of the present application, the Examiner states that Martin discloses: "A base plate (ref 37) between the blade & the ground surface (cl. 14)". In addition, the Examiner states that: "Martin discloses the claimed invention except for showing the base plate being arranged on the front region of the mower."

Applicants respectfully disagree with the Examiner's interpretation of the Martin patent. Reference 37 of the Martin patent is the bottom plate of a discharge opening. As best illustrated in FIG. 1 of the Martin patent, bottom plate (37) does not extend under the path of the blade. Rather, it extends completely outside and laterally of the circular path of the rotating fan/blade (19). Since the lawnmower is wheel-less and requires the blade/fan (19) to create an air cushion

sufficient to support and lift the weight of the lawnmower in a stable manner above an underlying ground surface, no portion of the blade/fan (19) can be covered by plate (37) or it will prevent the necessary air cushion from being created.

Claim 14 of the present application requires "a front region (18) of the blade housing in the mowing direction (17) is partially covered by a base plate (19), which runs between the blade and the ground surface". The purpose for the base plate covering the blade in the front portion of the blade housing is stated above in detail. It shields grass from being cut by the outermost cutting region of the blade of the mower as the outermost cutting region rotates in the front half of the mower. The result is that grass is only first cut when the rear half of the mower passes over the underlying ground surface. At this location, the grass is cut to a height defined by an inner cutting region of the blade. Thereafter, as the mower travels forward, the grass is cut incrementally several times by an intermediate cutting region of the blade before being cut to a final height by an outermost cutting region of the blade. Thus, a blade of grass extending from the underlying surface is severed several times from the underlying ground surface in relatively short-length increments thereby providing grass clippings of desired short lengths.

The Martin patent fails to disclose the use of a base plate extending between and shielding the rotating blade from the underlying ground surface. In addition, the Martin patent fails to disclose a mower capable of cutting grass in short-length increments numerous times to a final height so that the resulting grass clippings are of short-lengths. The mower of the Martin patent merely cuts the grass one-time to a final height. The Martin patent teaches away from the use of a base plate covering the blade because the blade of Martin is required to function as a fan

and create an air cushion capable of supporting the weight of the lawnmower in a stable manner above the underlying ground surface.

For these reasons, Applicants respectfully request reconsideration and removal of the rejection based on the Martin patent.

IV. Conclusion

In view of the above amendments and remarks, Applicants respectfully submit that the rejections have been overcome and that the present application is in condition for allowance. Thus, a favorable action on the merits is therefore requested.

Please charge any deficiency or credit any overpayment for entering this Amendment After Final to our deposit account no. 08-3040.

Respectfully submitted,
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